

Work Order ID 75056

75056

Page 1

October-17-11 10:40:25 AM

Item ID: D3488-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Blade Fitting Assembly, LH

Start Date: 17/10/2011 Start Qty: 12.00

12

Cust Item ID:

Required Date: 28/10/2011 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan: MLJDate: 11/10/17 Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3488

Rev B

100

Doosan

Doosan Lathe

DOOSAN LATHE

Memo

1-Turn as per Dwg DSK 101 & Folio FA6252-Deburr

11/10/26

110

110

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

11/10/26

120

120

HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

1-Machine as per Folio FA625 & Dwg D34882-Deburr

F.K. 11/11/04
11/11/07

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Work Order ID 75056

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Page 2

October-17-11 10:40:25 AM

Item ID: D3488-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Blade Fitting Assembly, LH
 Start Date: 17/10/2011 Start Qty: 12.00 ***12*** Cust Item ID:
 Required Date: 28/10/2011 Req'd Qty: 12.00 ***12*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|----------------------|-----------------------------|--------|--------------|---------------|---------------|------------------|----------------|
| 130 *130* QC Quality Control | QC2- Inspect parts off machine FAI/FAIB Memo | 0.00 0.00 | FK- 11/11/04 SL 11/11/07 | | | 12 | 0 | | |
| 140 *140* QC Quality Control | QC8- Inspect parts - second check Memo | 0.00 0.00 | only 11/11/08 | | | 12 | 0 | | |
| 150 *150* HandFinish Hand Finishing | Chemical Conversion Coat per QSI005 4.1 Memo | 0.00 0.00 | | | | | | | 120 M-11/11/10 |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Work Order ID 75056

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Page 3

October-17-11 10:40:25 AM

Item ID: D3488-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Blade Fitting Assembly, LH
 Start Date: 17/10/2011 Start Qty: 12.00 ***12*** Cust Item ID:
 Required Date: 28/10/2011 Req'd Qty: 12.00 ***12*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 160 | White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum | 0.00 | | | | | | | |
| *160* | | | | | | | | | |
| Powdercoat | | | | | | | | | |
| Powder Coating | | | | | | | | | |
| | Memo | | | | | | | | |
| | START TIME: 8-10 | 0.00 | | | | | | | |
| | FINISH TIME: 8-40 | | | | | | | | |
| 170 | QC3- Inspect Part Finish | 0.00 | | | | | | | |
| *170* | | | | | | | | | |
| QC | | | | | | | | | |
| Quality Control | Memo | 0.00 | | | | | | | |
| 180 | HandFinishing | 0.00 | | | | | | | |
| *180* | | | | | | | | | |
| HandFinish | | | | | | | | | |
| Hand Finishing | Memo | 0.00 | | | | | | | |
| | Install Inserts as per Dwg D3488 | | | | | | | | |

12 x 11/11/11

12 BL 11-11-11

12 x 11/11/15
counted

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Work Order ID 75056

October-17-11 10:40:25 AM

75056

Page 4

Item ID: D3488-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Blade Fitting Assembly, LH
 Start Date: 17/10/2011 Start Qty: 12.00 ***12*** Cust Item ID:
 Required Date: 28/10/2011 Req'd Qty: 12.00 ***12*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|--|----------------------|--------------------|--------|--------------|---------------|---------------|------------------|----------------|
| 190 *190* QC Quality Control | QC5- Inspect part completeness to step on W/O Memo | 0.00 0.00 | Sululis | | | K12 | | | |
| 200 *200* Packaging Packaging | Identify as per dwg & Stock Location: <u>FP2</u> Memo | 0.00 0.00 | 12x of all 6/16/15 | | | COUNTED | | | |
| 210 *210* QC Quality Control | QC21- Final Inspection - Work Order Release Memo | 0.00 0.00 | 11/11/16 | | | MF 11-11-13 | | | |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Picklist Print

October-17-11 10:40:30 AM

Page 1

Work Order ID: 75056

75056

Parent Item: D3488-041

D3488-041

Parent Item Name: Blade Fitting Assembly, LH

Start Date: 17/10/2011

Required Date: 28/10/2011

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A New Issue 06-02-28 JLM
IPP Rev:B As per Rev B 06-03-30 JLM
IPP Rev:C Now On Doosan Lathe JLM Verified BY:DD

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

ALS7-1032-225

Purchased

No

Each

1,173.000

48

AI S7-1032-225

**

INSERT

1118966(x48) 11/10/15

ALS4-1032-225

Location

Loc Qty

Loc Code

ST282

1173

100896

146

111529

27

118520

1000

D6103-003

Manufactured

No

Each

19.0000

12

D6103-003

**

Round Billet, Aluminum

SA 10/10/26

Location

Loc Qty

Loc Code

MAT

7

71884

7

MAT043

12

69901

3

71178

9

75066

9

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

| | | | |
|---|--|---------------------|---------|
| DART AEROSPACE LTD | | Work Order: | 75054 |
| Description: Blade Fitting, LH / Turning Detail for D3488-1/-2 | | Part Number: | D3488-1 |
| Inspection Dwg: D3488 / DSK101 Rev: B / D | | Page 1 of 2 | |

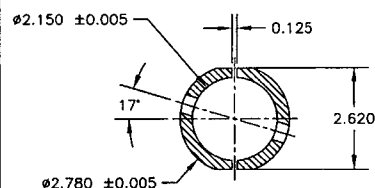
FIRST ARTICLE INSPECTION CHECKLIST

☒ **First Article** ☐ **Prototype**

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|----------------------|--------------------|------------------|--------|--------|----------------------|----------|
| Lathe Section | | | | | | |
| Ø2.150 | +/-0.005 | 2.150 | / | | | |
| Ø2.780 | +/-0.005 | 2.780 | / | | | |
| Ø3.125 | +/-0.010 | 3.125 | / | | | |
| Ø3.346 | +/-0.010 | Ø3.346 | / | | | |
| 0.125 x 45° | +/-0.010 x +/-0.1° | .125 x 45° | / | | | |
| 8.000 | +0.030/-0.000 | 8.076 | / | | | |
| 9.250 | +/-0.010 | 9.251 | / | | | |
| 0.188 | +/-0.010 | .188 | / | | | |
| R0.032 | +/-0.010 | R.032 | / | | | |
| R0.062 | +/-0.010 | R.062 | / | | | |
| Ø0.297 | +0.005/-0.001 | .301 | / | | | |
| Ø0.430 | +/-0.010 | Ø.434 | / | | | |
| 0.100 | +/-0.010 | .102 | / | | | |
| 0.125 | +/-0.010 | .132 | / | | | |
| 2.620 | +/-0.010 | 2.621 | / | | | |
| 3.500 | +/-0.010 | 3.500 | / | | | |
| 1.005 | +/-0.010 | 1.005 | / | | | |
| Ø0.484 | +0.005/-0.001 | .488 | / | | | |
| 1.180 | +/-0.010 | 1.180 | / | | | |
| 3.150 | +/-0.010 | 3.150 | / | | | |
| 3.070 | +/-0.010 | 3.089 | / | | | |
| R0.063 | +/-0.010 | R.063 | / | | | |
| | | | | | | |
| | | | | | | |



- Ø0.297
C'BORE Ø0.430 x 0.100
INSTALL ALS4-1032-225 (OR AKS4-1032-225
OR ALS7-1032-225 OR AKS7-1032-225)
INSERTS AFTER FINISH
(4 PLACES)



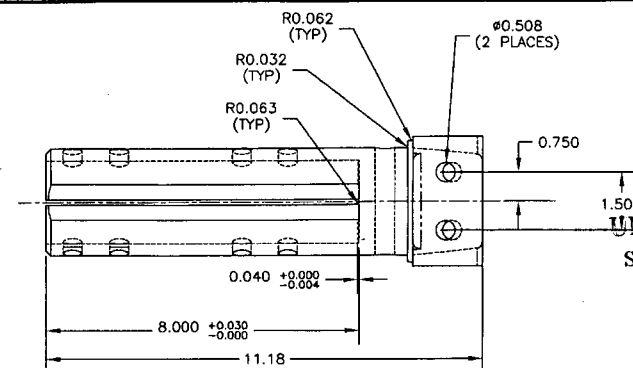
SECTION A-A

~~D3488-041/-042 BLADE FITTING ASSEMBLY PARTS LIST~~

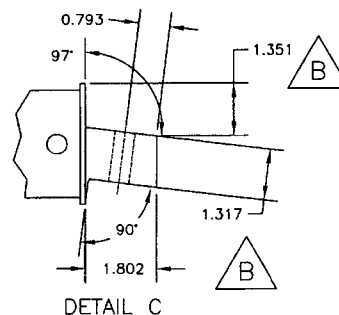
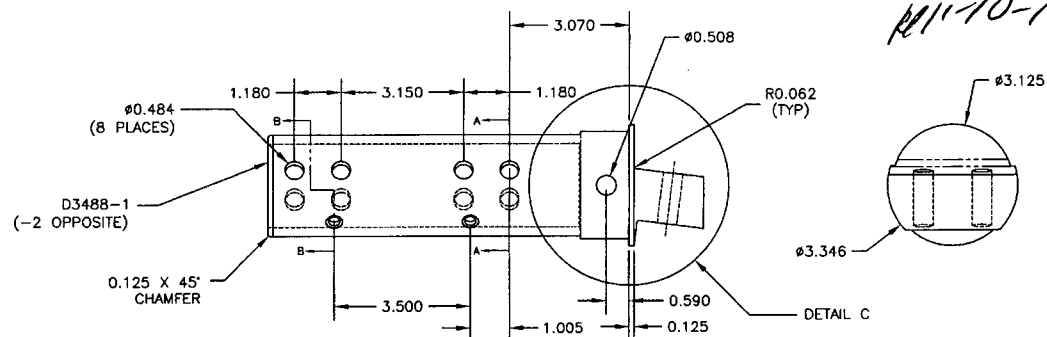
| QTY -041 | QTY -042 | PART NUMBER | DESCRIPTION |
|-------------|-------------|---|-----------------------------|
| X | | D3488-041 | BLADE FITTING ASSEMBLY (LH) |
| | X | D3488-042 | BLADE FITTING ASSEMBLY (RH) |
| 1 | | D3488-1 | BLADE FITTING (LH) |
| | 1 | D3488-2 | BLADE FITTING (RH) |
| 4 | 4 | ALS4-1032-225 or AKS4-1032-225 or ALST-1032-225 or AKS7-1032-225 | INSERT |

D3488-041/-042 BLADE FITTING

- 1) MATERIAL: MAKE D3488--1/-2 FROM ALUMINUM 7075-T7351 ROUND BAR
(PER QQ-A-225/9
(REF. DART MATERIAL SPEC M7075T73R)
- 2) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- 3) BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) INSTALL INSERTS AFTER POWDER COAT
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED








1.500
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 7505C



D3488-041 SHOWN (D3488-042 OPPOSITE)

RELEASED
06.03.27 PH
PER OS
ECN #739

| | | |
|---|---|---|
| B | 06.03.15 | CHANGE THICKNESS |
| A | 05.12.20 | NEW ISSUE |
| DESIGN | DRAWN BY |  DART AEROSPACE USA, INC. PORT HADLOCK, MA |
|  |  | |
| CHECKED | APPROVED | DRAWING NO. |
|  |  | D3488 |
| DATE | TITLE | SCALE |
| 06.03.15 | BLADE FITTING | 1:3 |

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